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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/644,871

08/21/2003

Hiroyuki Nishida

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09/15/2006

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EXAMINER

VALENTIN, JUAN D

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,871

Applicant(s)

NISHIDA ET AL.

Examiner

Juan D. Valentin II

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-26 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-17 and 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/21/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 08/21/2003 has been fully considered.
2. The application does not contain an IDS dated October 21, 2003. If applicant wishes for said IDS to be considered applicant must resubmit the IDS with the postage receipt post card.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 24 & 25 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has not provided wherein the instant application as originally filed there is support for the newly added subject matter. Applicant is asked to please provide support within the originally filed application for the newly presented claims 24 & 25. Examiner is unsure how the image data from each detector is combined, and once combined how does the change in luminance of each individual detector change the luminance (of the already measured light from each photodetector) of the combined light? Claims 24 & 25 will be examined to the examiner's best understanding of the claimed subject matter with regard to the specification as originally filed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 8 & 21-26 rejected under 35 U.S.C. 102(b) as being anticipated by Maki et al.

(machine English, http://dossier1.ipdl.ncipi.go.jp/AIPN/odse_top_dn.ipdl?N0000=7400,

translation of Japanese Patent Application publication H05-52526, hereinafter Maki).

Claims 8, 21, 22, 23, & 26

Maki in conjunction with Fig. 2 discloses an apparatus for measuring a dimension of a sheet member 13, comprising a light source, a plurality of photo detectors (Fig. 3, refs. 14-20), having respective optical axes directed toward a feed path of the sheet member, for directly or indirectly detecting said light from said light source, and a data processor for detecting the position of an terminal end of said sheet member based on the luminance of said light detected by said photodetectors, and measuring a dimension of said sheet member from the detected position of the end of said sheet member (claims 21-23, & 26, [003, 008-0011, 0018, & 0022-0023]).

Claims 24-25

Maki discloses combining the image data obtained from each photo detector in order to gather the size and shape dimensions of the sheet under test and further as the dimensions change of the conveyed sheet, the luminance in each detector will change therefore causing the

combined image data to change in order to calculate the new dimension of the next sheet under test ([0018-0023]).

Claim Rejections - 35 USC § 10/Response to Arguments

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Applicant's arguments filed 06/21/2006 have been fully considered but they are not persuasive. Please see rejection below.
6. Claims 8, 9, 14, 23, & 26 rejected under 35 U.S.C. 103(a) as being unpatentable over DeCock (USPN '723) in view of Bridges (USPN '332).

Claims 8, 9, 14, 23, & 26

DeCock in conjunction with Figs. 1 & 4, discloses an apparatus for measuring a dimension (Fig. 4, ref. A-G) of a sheet member 14, comprising an infrared light source 10 (col. 3, lines 53-56), a plurality of photodetectors 17, having respective optical axes directed toward a feed path of the sheet member, for directly or indirectly detecting said light from said light source 10, and a data processor (Fig. 6, ref. 23) for detecting the position of an end of said sheet member 14 based on the luminance of said light detected by said photodetectors 17, and measuring a dimension (Fig. 4, ref. A-G) of said sheet member 14 from the detected position of the end of said sheet member 14 (col. 3, line 1-col 4, line 16).

DeCock substantially teaches the claimed invention except that it fails to show an LED (claim 14) light source for applying light in a wavelength range which prevents the sheet member from being fogged. Bridges shows that it is known to provide a LED light source for applying light in a wavelength range which prevents the sheet member from being fogged (col. 1, lines 47-53 & col. 4, lines 37-41) for a defecting inspecting apparatus in a moving web. It would have been obvious to someone of ordinary skill in the art to combine the device of DeCock with the infrared fog-preventing lamp of Bridges for the purposes of providing defect inspection light on a moving web of film without exposing the film.

Applicant has argued that DeCock does not detect the position of an end of a sheet member. Examiner's rejection is maintained, applicant has not defined within the scope of the claim the definition of "end", while applicant argues that DeCock does not have a distinct front or back end. DeCock clearly shows a right end and left end of a sheet member, and it is noted an end could be the right end, left end, front end, and/or back end of a sheet member, and does not need to be limited to the front and back as argued by applicant. In the current instance, DeCock discloses detecting the position of the right and left ends of sheet member 14 as evidenced by referenced Z_l and Z_r in Figs. 2 & 3, as well as Fig. 4 which shows that the processor measures the overall width of sheet member 14 by calculating the distance between measured "end" points Z_l and Z_r (claims 23 & 26).

Claim 10

DeCock as applied above further discloses wherein said data processor 23 comprises threshold setting means for setting a threshold depending on an optical property of said

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sheet member 14, and end detecting means for detecting the position (Fig. 4, ref. A-G) of the end of said sheet member 14 based on said threshold and the luminance of said light (col. 3, line 36-col. 4, line 16).

Claim 11

DeCock as applied above further discloses wherein said photodetectors 17 are disposed in a position to detect said light that has passed through the feed path of said sheet member 14 (Fig. 1), said threshold setting means comprising means for setting said threshold depending on the transmittance of said light as said optical property of said sheet member (col. 3, line 36-col. 5, line 10).

Claim 15

DeCock in view of Bridges discloses the claimed invention except for wherein said sheet member comprises a photographic film, said infrared light having a wavelength of at least 900 nm. It is inherent to someone of ordinary skill in the art at the time of the invention was made to find the optimum infrared wavelength range which would prevent fogging, since it has been held that discovering an optimum value or workable range of a result effective variable involves only routine skill in the art.

Claim 16

DeCock as applied above discloses a two-dimensional diode matrix array. Official notice taken. It is the position of the Office that DeCock discloses the claimed invention except for the use of a CCD camera. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a CCD camera in place of the two-dimensional diode matrix array since the Examiner takes Official notice of the equivalence of a CCD camera and a two-

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dimensional diode matrix array for their use in the art of moving web inspection systems and the selection of any of these known equivalents would be within the level of ordinary skill in the art.

Applicant has traversed the Official Notice stated above. While someone of ordinary skill in the art at the time of the claimed invention would obviously know that a CCD camera is in fact a two-dimensional diode array matrix, Examiner has provided Sawanobori (USPN '921) as evidence supporting Examiners Official Notice. Sawanobori shows that a CCD camera is a two dimensional matrix array (Fig. 2, col. 3, lines 21-24 & col. 4, lines 18-35).

7. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over DeCock in view of Bridges and further in view of Wenthe, Jr. (USPN '140).

Claim 12

DeCock as applied above discloses wherein said data processor 23 comprises dimension acquiring means for determining the dimension of said sheet member based on the position of said end detected by said end detecting means (col. 3, line 35-col. 5, line 2).

DeCock as applied above substantially teaches the claimed invention except that it fails to show skew detecting means for detecting a skew of said sheet member based on the position of said end detected by said end detecting means, and skew correcting means for correcting the dimension of said sheet member determined by said dimension acquiring means based on the skew detected by said skew detecting means. Wenthe, Jr. shows that it is known to provide skew detecting means for detecting a skew of said sheet member based on the position of said end detected by said end detecting means, and skew correcting means for correcting the dimension of said sheet member determined by said dimension acquiring means based on the skew detected by

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said skew detecting means (col. 4, lines 3-60) for a visually inspection apparatus of a moving web. It would have been obvious to someone of ordinary skill in the art to combine the device of DeCock with the deskewing method of Wenthe, Jr. for the purposes of providing reliable correction of misregistration of a moving web.

8. Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over DeCock in view of Bridges and further in view of Kerkhoff et al. (USPN '181, hereinafter Kerkhoff).

Claim 13

DeCock as applied above substantially teaches the claimed invention except that it fails to show wherein said light source comprises an electronic flash lamp for applying said light to said sheet member as it is fed along said feed path, for a predetermined period of time. Kerkhoff shows that it is known to provide an electronic LED flash lamp for applying said light to said sheet member as it is fed along said feed path, for a predetermined period of time (col. 3, line 40-col. 4, line 18) for a visually inspection apparatus of a moving web. It would have been obvious to someone of ordinary skill in the art to combine the device of DeCock with the LED flash lamp of Kerkhoff for the purposes of providing reliable evaluation of the quality of a moving web (col. 3, lines 1-7).

9. Claim 17 rejected under 35 U.S.C. 103(a) as being unpatentable over DeCock in view of Bridges and further in view of Richards et al. (USPN '952 B1, hereinafter Richards).

Claim 17

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DeCock as applied above substantially teaches the claimed invention except that it fails to show at least a pair of belt conveyors for feeding said sheet member while gripping the sheet member there between. Richards shows that it is known to provide at least a pair of belt conveyors for feeding said sheet member while gripping the sheet member there between (Fig. 1) for a sheet handling system. It would have been obvious to someone of ordinary skill in the art to combine the device of DeCock with the sheet conveying system of Kerkhoff for the purposes of providing high speed feeding and registering of a traveling sheet (Richards, col. 7, lines 5-11).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan D. Valentin II whose telephone number is (571) 272-2433.

The examiner can normally be reached on Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Juan D Valentin II
Examiner 2877
JDV
September 5, 2006



LAYLA G. LAUCHMAN
PRIMARY EXAMINER